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Group-Washington

June 5, 1996

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JUN 5 1996

Fed. of Comm. and Tel. Commission
Office of Secretary

EX PARTE

William F. Caton
Acting Secretary
Federal Communications Commission
Mail Stop 1170
1919 M Street, N.W., Room 222
Washington, D.C. 20554

Dear Mr. Caton:

Re: CC Docket No. 95-116, Number Portability

Please associate the attached document with the file in the above docket.

We are submitting two copies of this notice in accordance with Section 1.1206(a)(1) of the Commission's Rules.

Please stamp and return the provided copy to confirm your receipt. Please contact me should you have any questions or require additional information concerning this matter.

Sincerely,

Alan F. Ciamporcero

cc: Mindy Littell

No. of Copies rec'd
Date

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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on the)
Commission's Own Motion Into) R.95-04-043
Competition for Local Exchange)
Service.)

Order Instituting Investigation)
on the Commission's Own Motion) I.95-04-044
into Competition for Local Exchange)
Service.)

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JUN 5 1996

Federal Communications Commission
Office of Secretary

**PACIFIC BELL'S (U 1001 C) COST COMPARISON AND IMPLEMENTATION
SCHEDULE FOR DEPLOYMENT OF PERMANENT
NUMBER PORTABILITY SOLUTIONS**

In compliance with Administrative Law Judge's Ruling dated May 30, 1996 in the above-referenced proceeding, we hereby submit the relative cost comparison and implementation schedule between the two permanent number portability solutions, Location Routing Number ("LRN") and Query On Release ("QOR").

**I.
IMPLEMENTATION SCHEDULE**

At the workshop held May 24, 1996, the California Number Portability Task Force agreed to attempt to establish two implementation schedules, one sponsored by the proponents of QOR and the other by LRN proponents for each solution. The implementation schedule sponsored by QOR proponents for both QOR and LRN is attached as Exhibit 1. We submit Exhibit 1 with the following assumptions:

(1) Switch software will be available on the date forecasted by the vendors; (2) Cost

recovery issues will be resolved before major investments are made; 3) Carriers will match existing rate centers as all switch requirements for number portability are currently predicated on consistent rate centers; (4) The Commission will decide upon platforms for number portability by the end of September 1996 as vendors need commitments in order to go forward with software development. We also attach as Exhibit 2 a preliminary list of our operational support systems that require modifications or replacement prior to the implementation of permanent number portability. While switch software may be available in mid to late 1997, operational support systems will require work which will not be completed until the fourth quarter of 1998 for both LRN and QOR.

II. RELATIVE COST COMPARISON

The relative cost comparison between implementing LRN versus QOR in our network is attached as Exhibit 3. Supporting work papers attached as Exhibit 4 to this filing are confidential and are submitted under seal.¹ We submit Exhibits 3 and 4 with the same assumptions noted in the previous paragraph and with the assumptions stated in the Exhibits themselves.

As the Commission can see from this filing, we face significant costs in implementing number portability. However, on the issues of costs and cost recovery, there is no consensus in the Task Force. We believe that cost recovery issues must be resolved before we are forced to make significant, competitively disabling investments

¹ Parties wishing to view our confidential material must sign non-disclosure agreements with us. Parties may not view vendor specific confidential material included in Exhibit 4.

in this new technology. We cannot go forward with implementing a permanent solution without some assurance that prudently invested costs will be recovered. We recognize that this issue is set for hearings in Phase III of this proceeding, however, we will begin to incur costs before such issues are resolved.

The Commission can address some of these cost issues without delaying the availability of number portability. For example, the Commission can approve the recovery of switch vendor costs immediately. Additionally, the Commission can order both us and General Telephone Company of California, Inc. ("GTEC") and other carriers to set up a memorandum account to accurately track all expenses associated with the implementation of number portability. Once a mechanism for cost recovery is decided upon, these account amounts can be immediately recovered, thereby ensuring competitive neutrality.

III. CONCLUSION

For the foregoing reasons, the Commission should immediately allow for recovery of switch vendor costs for permanent number portability and order a memorandum account for the tracking of other costs associated with implementing permanent number portability.

(SIGNATURE PAGE FOLLOWS)

Dated at San Francisco, California, this 3rd day of June, 1996.

Respectfully submitted,



COLLEEN M. O'GRADY

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Attorney for Pacific Bell

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EXHIBIT 1

EXHIBIT 1

LRN

Milestones LRN Method (GTE/PS)	Date Qtr	Date Yr
Individual company OSS/OPS planning in draft	2	1996
Preliminary MSA-based prioritization schedule determined	2	1996
Cell Model Determined	3	1996
Cost Issues Resolved	3	1996
CPCN carriers polled for CLLI code office prioritization	3	1996
SWR & SIG & Operator Svc requirements finalized	3	1996
Intercompany communications plan determined	4	1996
Operations requirements drafted	4	1996
Rating and Billing requirements drafted	4	1996
SMS LLC Formed	4	1996
SMS RFP issued	4	1996
SMS vendor selected	4	1996
Detailed SMS requirements and high level design work begun with vendo	1	1997
Finalize Operational requirements	1	1997
Individual company OSS/OSP planning finalized	1	1997
Rating and Billing requirements finalized	1	1997
SMS Vendor Contract signed	1	1997
First Office Application DMS 100	2	1997
General Availability for 1AESS	2	1997
General Availability for DMS 10	2	1997
General Availability for DMS 100	2	1997
First Office Application 1AESS	2	1997
First Office Application 5ESS	2	1997
First Office Application DMS 10	2	1997
STP Software developed	2	1997
First Office Application GTD-5	3	1997
Lab to Lab testing initiated	3	1997
SCP Software developed	3	1997
Test Plans (Switch to SCP, Switch to Switch, etc) developed	3	1997
Rollout schedule determined	4	1997
SCP/STP testing initiated	4	1997
General Availability for GTD-5	1	1998

LRN

Regional (State) SMS ready for LEC testing	1	1998
General Availability for SESS	2	1998
First tier MSA switch software installed	3	1998
Individual company processes ready	3	1998
Individual company processes tested	3	1998
Regional SMS (State) ready for deployment	3	1998
Begin deployment in first tier MSA	4	1998
Company SCP/SMS/SOA ready	4	1998
Field test complete	4	1998
First NPA/NXX open	4	1998

QoR

Milestone QoR Method (QTE/PS)	Date Qtr	Date Yr
Individual company OSS/OPS planning in draft	2	1996
Preliminary MSA-based prioritization schedule determined	2	1996
Call Model Determined	3	1996
Cost Issues Resolved	3	1996
CPCN centers pulled for CLLI code office prioritization	3	1996
SWR & SIG & Operator Svc requirements finalized	3	1996
Intercompany communications plan determined	4	1996
Operations requirements drafted	4	1996
Rating and Billing requirements drafted	4	1996
SMS LLC Formed	4	1996
SMS RFP issued	4	1996
SMS vendor selected	4	1996
Drafted SMS requirements and high level design work begun with vendo	1	1997
Finalize Operational requirements	1	1997
Individual company OSS/OSP planning finalized	1	1997
Rating and Billing requirements finalized	1	1997
SMS Vendor Contract signed	1	1997
First Office Application DMS 100	2	1997
General Availability for 1AESS	2	1997
General Availability for DMS 10	2	1997
General Availability for DMS 100	2	1997
STP Software developed	2	1997
First Office Application DMS 10	3	1997
First Office Application GTD-5	3	1997
Lab to Lab testing initiated	3	1997
SCP Software developed	3	1997
Test Plans (Switch to SCP, Switch to Switch, etc) developed	3	1997
Rollout schedule determined	4	1997
SCP/SMS testing initiated	4	1997
First Office Application 1AESS	1	1998
First Office Application 5ESS	1	1998
General Availability for GTD-5	1	1998

QoR

Regional (State) SMS ready for LEC testing	1	1998
General Availability for SESS	2	1998
First tier MSA switch software installed	3	1998
Individual company processes ready	3	1998
Individual company processes tested	3	1998
Regional SMS (State) ready for deployment	3	1998
Begin deployment in first tier MSA	4	1998
Company SCP/SMS/SOA ready	4	1998
Field test complete	4	1998
First NPA/NXX open	4	1998

EXHIBIT 2

LNP Systems Impacts

Ordering, Provisioning, and Service Assurance

EXHIBIT 2

Bellcore Systems Impact:

CCRS - Centrex Customer Rearrangement System
CCSN - Customer Contact Services Node
COSMOS (capacity limited, replacement) - Computer System for Mainframe Operations
EXCHANGE PLUS
FEPS - Facility & Equipment Planning System
LIDB - Line Identification Data Base
LOMS - LAC (Loop Assignment Center) Operations Management System
LFACS - Loop Facilities Assignment & Control System
MARCH(TM) - Memory Activate/Assignment Recent Change Host
NMA-F: Network Monitoring and Analysis Facilities
NSDB - Network Services Data Base
PREMIS (replacement) - Premises Information System
SOAC - Service Order Analysis & Control
TIRKS - Trunk Information Record Keeping System
WFA - Work Force Administration

Pacific Bell Systems Impact:

AMOS - Access Mechanized Order System
APTOS - Automated Pricing, Terminals Options and Services
CESAR - Customer Enhanced System for Access Requests
CLC (entry system, TBD)
CSFT - Customer Services Feature Translator
CSTAR - CSC Smart Tools Auto Resolver
FIRST - FACS Internal Resolution System Technology
FWS - Frame Work Station
ORGIS - Order Repository Generation and Implementation System
PBITS - Pacific Bell ISDN Testing System
PBVS - Pacific Bell Verification System
SORD (edits for NXX) - Service Order Retrieval & Distribution

Pacific Bell New Systems Impact:

NAA - Number Assignment and Administration
AP - Application Platform

Other Vendor Systems:

LMOS (Lucent) - Loop Maintenance Operating System
IPMS - Integrated Process Management System
MLT - Mechanized Loop Test
Predictor - A service assurance system which tests twisted pair.
Starwriter - Order entry system for single line residence service

- Service Order Interface to the Regional SMS (Unknown)
- Local SMS development

Does not include Billing Systems impacted

Note: this is not an all inclusive list.

LNP Systems Impacts

Ordering, Provisioning, and Service Assurance

Bellcore Systems:

- CCRS: Centrex Customer Rearrangement System - Provisioning - Provides Centrex customers the ability to make their own rearrangements. (e.g., TN swaps)**
- CCSN: Customer Contact Services Node - Provisioning - Provides call routing to Business Office and Repair Service for simple residence and small business customers.**
- COSMOS: Computer System for Mainframe Operations - Provisioning - Primary source of telephone number (TN) assignment. Component of FACS (Facility Assignment and Control System).**
- Exchange Plus: Ordering - Assist service reps in the order negotiation process by providing them, on-line, with information about exchanges, directory, etc.**
- FEPS: Facility and Equipment Planning System - Provisioning - Mechanized tool in planning and implementing the way network facilities and transmission equipment should be used by provisioning.**
- LIDB: Line Identification Data Base - Validation - Performs validation of calling card services for both Pacific Bell customers and some IEC customers (InterLATA).**
- LFACS: Loop Facilities Analysis Control System - Provisioning - Component of FACS (Facility Assignment and Control System). Assigns and inventories local loop outside plant (cable, etc.)**
- LOMOS: LAC (Loop Assignment Center) Operations Management System - Provisioning - Tracks and creates work packages of RMAs (Request for Manual Assistance) in MLACs (Mechanized Loop Assignment Center). Tracks service order activity.**
- MARCH: (was Mechanized Activate/Assignment Recent Change Host) - Provisioning - System communicates with the switch; converts USOCs and FIDs to switch language. Tracks and provisions pending service orders.**
- NMA-F: Network Monitoring and Analysis Facilities - Service Assurance - Monitoring, surveillance, and analysis of network transport elements.**
- NSDB: Network Services Database - Provisioning - Data layer building block which provides a shared corporate database for Operations Support Systems. It provides an end-to-end view of the circuit data.**
- PREMIS: Premises Information System - Provisioning - Database information retrieval system used for Service Order negotiation. Prime source of spare TNs, street address validation, status of service and available TN assignment information for residence and small businesses.**
- SOAC: Service Order Analysis & Control - Provisioning - Primary controlling component of FACS. Contains the Service Order until it is complete and purged from the database.**

Note: this is not an all inclusive list.

LNP Systems Impacts

Ordering, Provisioning, and Service Assurance

TIRKS: Trunks Integrated Record Keeping System - Provisioning - Manages the inventory, design, engineering and planning of the interoffice network.

WFA/C: Work Force Administration Control - Provisioning - Maintains line record data for customer services. Provides trouble ticket handling for Special Services Centers.

Pacific Bell Systems:

AMOS: Access Mechanized Order System - Provisioning - Provides work force administration for Special Service and HICAP design, testing and installation work groups.

APTOS: Automated Pricing, Terminals Options and Services - Ordering - APTOS performs many sales support functions. (e.g., pricing, configurations, circuit ID, etc.)

CESAR: Customers' Enhanced System for Access Requests - Ordering - Allows common carriers (e.g., ATT, MCI, Spring, etc.) to input their own service orders via a standard data dictionary.

CLC entry system: Competitive Local Carrier entry system, TBD.

CSFT: Customer Services Features Translator - Provisioning - Provisions features for ISDN (home and business), some features for P-Phones (electronic business sets) and SDS (small business customers).

CSTAR: Customer Service Center Smart Tools & Auto Resolver - Provisioning - Automatic resolution of System (MARCH & PBVS) generated errors.

FIRST: FACS Internal Resolution System Technology - Provisioning - Provides mechanized resolution of specific Requests for Manual Assistance (RMAs) within the FACS (Facility Assignment and Control System) system.

FWS: Frame Work Station - Provisioning - an order delivery system for provisioning of non-designed services and local loop for message and special services designed orders.

ORGIS (ISDN support): Order Repository and Generation System - Ordering - A front-end to SORD.

PBITS: Pacific Bell ISDN Test System - Provisioning & Service Assurance - Performs mechanized ISDN Testing, digital loop test, line card verification, etc.

PBVS: Pacific Bell Verification System - Provisioning - Verifies that a switch has been activated as requested in the service order.

SORD: Service Order Retrieval and Distribution - Ordering - Mechanized on-line application which accepts, edits, stores, and distributes service order for installation and/or modification of telephone and related services.

Note: this is not an all inclusive list.

LNP Systems Impacts

Ordering, Provisioning, and Service Assurance

Pacific Bell New Systems (under development)

NAA: Number Assignment and Administration system - Ordering and Provisioning -
Provides a single corporate database for use in the assignment and administration of
TNs.

AP: Application Platform - Provisioning - Manages the provisioning of service requests for
assembled circuits.

Other Vendor Systems:

IPMS - Integrated Process Management System - Provisioning and Service Assurance -
Key functions are: order status and completion, trouble ticket status and closure,
automatic billing to name a few.

LMOS: Loop Maintenance Operating System - Service Assurance and Provisioning -
Trouble reporting system for customer loop. (Lucent)

MLT: Mechanized Loop Test - Provisioning and Service Assurance - Testing of copper
loop facilities.

Predictor: Service Assurance - Has a circuit to every CO in the State. Test (overnight)
twisted pairs to determine potential trouble.

Starwriter: Ordering - Order entry system for service reps to order residential service.

Note: this is not an all inclusive list.

EXHIBIT 3

Cost Comparison & Implementation Timeline

QoR vs. LRN

California Local Number Portability Task Force

May 31, 1996

EXHIBIT 3

Cost Comparison

Query on Release is significantly less expensive than LRN

PACIFIC  BELL
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- 20% Porting
 - \$71 Million less than LRN
- 30% Porting
 - \$58 Million less than LRN
- 40 % Porting
 - \$45 Million less than LRN

Cost Comparison

Preliminary costs have been identified for QoR and LRN, but they are not all-inclusive

PACIFIC  BELL
A Pacific Telesis Company

Costs Included

- Capital
- Expense
 - Repair
 - Maintenance
 - Administrative
 - Systems Development
 - Billing
 - LIDB
 - Misc. STP Expense
 - VAS System
- Churn

Costs Excluded

- Regional SMS
 - Start-up/Ongoing
- Real time impacts on switches still under investigation
- Additional costs continue to be identified

Capital and associated Expense are the key drivers of cost differences between QoR and LRN

Costs that vary by architecture

- Capital
- Expense
 - Repair
 - Maintenance
 - Administrative
 - Misc. STP Expense
- Real time impacts on the switches still must be identified

Costs common to QoR and LRN

- Expense
 - Systems Development
 - Billing
 - LIDB
 - VAS System
- Churn

Cost Comparison

QoR is \$71 Million Less Than LRN over 5 yrs with 20% ported numbers

PACIFIC BELL
A Pacific Telesis Company

LRN		QoR	
Capital	\$314 Million	Capital	\$259 Million
Expense	\$215 Million	Expense	\$199 Million
Subtotal	\$529 Million	Subtotal	\$458 Million
Churn (Net)	\$198 Million	Churn (Net)	\$198 Million
Total	\$727 Million	Total	\$656 Million

* Ongoing administration and transactional costs of SMS and SMS Queries not included. Real time impacts on switches not yet available. Additional costs continue to be identified.

Cost Comparison

QoR is \$58 Million Less Than LRN over 5 yrs with 30% ported numbers

PACIFIC  BELL
A Pacific Telesis Company

LRN		QoR	
Capital	\$314 Million	Capital	\$269 Million
Expense	\$215 Million	Expense	\$202 Million
Subtotal	\$529 Million	Subtotal	\$471 Million
Churn (Net)	\$322 Million	Churn (Net)	\$322 Million
Total	\$851 Million	Total	\$793 Million

* Ongoing administration and transactional costs of SMS and SMS Queries not included. Real time impacts on switches not yet available. Additional costs continue to be identified.

Cost Comparison

QoR is \$ 45 Million Less Than LRN over 5 yrs with 40% ported numbers

PACIFIC BELL
A Pacific Telesis Company

(\$000)	LRN
Capital	\$314 Million
Expense	\$215 Million
Subtotal	\$529 Million
Churn (Net)	\$ 344 Million
Total	\$ 873 Million

(\$000)	QoR
Capital	\$279 Million
Expense	\$205 Million
Subtotal	\$484 Million
Churn (Net)	\$344 Million
Total	\$828 Million

* Ongoing administration and transactional costs of SMS and SMS Queries not included. Real time impacts on switches not yet available. Additional costs continue to be identified.

Cost recovery for LNP should be determined prior to ordering implementation timeline

- While switch software may become available in mid to late 1997, development and implementation of modifications, replacement and/or new operational support systems are required prior to the implementation of LNP
 - Operational Support Systems will not be available until 4th Quarter 1998
 - » Assumes critical systems are available for ETE testing
 - » Based upon today's understanding of LNP processes
 - » Requirements must be developed
 - Pacific Bell will not employ manual, or "blue line" work arounds
 - » Mechanized processes will be required
- Pacific will attempt to further expedite the timeline for OSSs, if possible, to facilitate implementation of overlays in the 415 and 916 NPAs, in 2Q98 and 4Q98, respectively

Significant modifications, replacement and development is required to Operational Support Systems to directly support any form of LNP ... QoR or LRN



- **Bellcore Systems Impacts**

- CCRS
- CCSN
- COSMOS - *Replacement*
- Exchange Plus
- DEPS
- LIDB
- LFACS
- MARCH (TM)
- NMA-F
- NSDB
- PREMIS - *Replacement*
- SOAC
- TIRKS
- WFA

- **Pacific Bell New Systems**

- NAA
- AP

- **Pacific Bell System Impacts**

- AMOS
- APTOS
- CESAR
- CLC
- CSFT
- CSTAR
- FIRST
- FWS
- ORGIS
- PBITS
- PBVS
- SORD

- **Other Vendor Systems**

- LMOS
- IPMS
- MLT
- Predictor
- Starwriter

This list is not all inclusive. Billing Systems impacts are not included. Service Order interface to Regional SMS and local SMS development must be considered